CLAIM LISTING

A listing of an entire set of claims 1-39 is submitted herewith per 37 C.F.R. §1.121. This listing of claims 1-39 will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented/Withdrawn) A method of manufacturing a filter for retaining a substance originating from a radiation source, the filter comprising a thin layer transparent to extreme ultraviolet and/or soft X-ray radiation, wherein the filter is resistant to high temperatures.

2. (Previously Presented/Withdrawn) The method of claim 1, wherein first the thin layer and subsequently a support structure for the thin layer are manufactured, or in reverse order, the filter being manufactured such that the thin layer is connected to the support structure in a high-temperature-resistant manner.

3. (Previously Presented/Withdrawn) The method of claim 1, wherein at least the thin layer is manufactured by means of a chemical and/or physical deposition process.

4. (Previously Presented/Withdrawn) The method of claim 1, wherein at least the thin layer comprises preponderantly zirconium, niobium, molybdenum, silicon, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

5. (Previously Presented/Withdrawn) The method of claim 2, wherein the thin layer and the support structure are manufactured as an integral whole.

6. (Previously Presented/Withdrawn) The method of claim 1, wherein a layer thickness for the thin layer of approximately 100 nm is achieved.

7. (Previously Presented/Withdrawn) The method of claim 2, wherein that the support structure comprises preponderantly zirconium, niobium, molybdenum, silicon, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

8. (Previously Presented/Withdrawn) The method of claim 2, wherein a thickness of approximately 1 μm up to 1 mm is adjusted for the support structure.

9. (Previously Presented/Withdrawn) The method of claim 2, wherein a material having a melting point of at least 1300 °C is chosen for the thin layer and the support structure.

10. (Previously Presented/Withdrawn) The method of claim 2, wherein the support structure is constructed in the form of strips, for example forming a grid structure or honeycomb-type woven structure.

11. (Previously Presented/Withdrawn) The method of claim 10, wherein the woven structure is generated by means of erosion, laser processing, or photochemical etching.

12. (Presently Amended) A device, comprising:

a radiation source; and

a filter for retaining a substance originating from [[a]] the radiation source [[using a filter]], the filter [[comprising]] including a thin layer that is transparent to extreme ultraviolet and/or soft X-ray radiation, wherein [[the filter is resistant to high temperatures]] the thin layer is preponderantly zirconium, niobium, molybdenum, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

13. (Currently Amended) The device of claim 12, wherein the thin layer is connected to a support structure [[in a high-temperature-resistant manner]], or in that the thin layer and the support structure can be manufactured as an integral whole.

14. (Previously Presented) The device of claim 13, wherein a material used for the thin layer and the support structure has a melting point of at least 1300 °C.

15. (Previously Presented) The device of claim 12, wherein at least the thin layer can be manufactured by means of a chemical and/or physical deposition process.

16. (Currently Amended) The device of claim 12, wherein [[at least the thin layer comprises]] the support structure is preponderantly zirconium, niobium, molybdenum, silicon, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

17. (Previously Presented) The device of claim 12, wherein the thin layer has a layer thickness of approximately 100 nm.

18. (Previously Presented) The device of claim 13, wherein the support structure has a thickness of approximately 1 μm to 1 mm.

19. (Previously Presented) The device of claim 13, wherein the support structure [[can be]] is constructed in the form of strips.

20. (Currently Amended) The device of claim 19, wherein the [[woven structure]] support structure is obtained by means of erosion, laser processing, or photochemical etching.

21. (Currently Amended) [[An apparatus for EUV lithography comprising the]] The device of [[Claim]] 12, wherein the radiation source and the filter are means for EUV lithography.

22. (Currently Amended) The [[apparatus for EUV lithography claimed in]] device of claim 21, wherein the filter [[of the device]] is operated at a temperature of approximately 900 °C to approximately 1300 °C.

23. ((Currently Amended) The [[apparatus for EUV lithography claimed in]] device of claim 21, wherein the temperature for the filter is adjustable such that the retained substance evaporates at a prevailing pressure.

24. (Currently Amended) The [[apparatus claimed in]] device of claim 21, wherein the temperature for the filter is adjustable such that the retained substance evaporates from the filter at a rate higher than that at which it is deposited thereon.

25. (Currently Amended) The [[apparatus claimed in]] device of claim 21, [[wherein]] further comprising:

a foil trap [[is additionally]] arranged between the radiation source and the filter.

26. (Currently Amended) The [[apparatus claimed in]] device of claim 21, wherein the filter seals off the radiation source in the form of a window.

27. (Currently Amended) The [[apparatus for EUV lithography claimed in]] device of claim 26, wherein the substance [[in]] originating from the radiation source reaches a partial pressure of approximately 10 Pa.

28. (Previously Presented) The device of claim 19, wherein the strips are in the form of a grid-type or honeycomb-type woven structure.

29. (New) A device, comprising:

a radiation source; and

a filter for retaining a substance originating from the radiation source, the filter including

a thin layer that is transparent to extreme ultraviolet and/or soft X-ray radiation, and

a support structure for the thin layer, wherein the support structure is preponderantly zirconium, niobium, molybdenum, silicon, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

30. (New) The device of claim 29, wherein the thin layer is connected to the support structure, or in that the thin layer and the support structure can be manufactured as an integral whole.

31. (New) The device of claim 29, wherein a material used for the thin layer and the support structure has a melting point of at least 1300 °C.

32. (New) The device of claim 29, wherein the thin layer is preponderantly zirconium, niobium, molybdenum, silicon, zirconium carbide (ZrC), zirconium dioxide, silicon carbide (SiC), silicon nitride (Si_3N_4), boron nitride (BN), or a combination thereof.

33. (New) The device of claim 29, wherein the thin layer has a layer thickness of approximately 100 nm.

34. (New) The device of claim 29, wherein the support structure has a thickness of approximately 1 μm to 1 mm.

35. (New) The device of claim 29, wherein the support structure is constructed in the form of strips.

36. (New) The device of claim 35, wherein the strips are in the form of a grid-type or honeycomb-type woven structure.

37. (New) The device of claim 29, further comprising:
a foil trap arranged between the radiation source and the filter.

38. (New) The device of claim 29, wherein the filter seals off the radiation source in the form of a window.

39. (New) The device of claim 29, wherein the radiation source and the filter are means for EUV lithography.